

# TELEVISION'S PORTRAYAL OF THE ENVIRONMENT: 1991-1995

By James Shanahan and Katherine McComas

*This paper examines data from an ongoing project which content analyzes television's messages about environmental issues. The data are weeklong samples taken yearly from prime-time network television programs sampled in the Boston, Massachusetts, and Ithaca, New York, areas. We analyze the environment as a "theme" in prime-time entertainment programming, recording its prevalence in comparison to other themes. A multiple dimensional scaling shows how the environment appears in relation to other themes on television. Also, we analyze "episodes" in television programs which have specific environmental content. Our data show that attention to environmental issues has been decreasing in our sample years 1991 to 1995.*



In 1992, Bill McKibben, the well-known environmental writer, argued that modern culture was eroding knowledge of environmental issues. "We believe that we live in the 'age of information,' that there has been an information 'explosion,' an information 'revolution.' While in a certain narrow sense this is the case, in many important ways just the opposite is true. We also live at a moment of deep ignorance, when vital knowledge that humans have always possessed about who we are and where we live seems beyond our reach. An Unenlightenment. An age of missing information."<sup>1</sup>

This concept resonated with many who interpreted a technological and consumerist society as placing barriers between environmental issues and our own everyday consciousness. McKibben saw the institution of television as one of the most important barriers because of its ability to dominate the consciousness of so many people. For McKibben, a comparison of what you might learn from a day's worth of television programs and what you might learn from a day in the Adirondacks was meant to illustrate the boundaries and dimensions of the disappearing information. The implication was that television's pervasive and studious inattention to the environment results in societal neglect of environmental issues.

But does TV "ignore" the environment? As interesting as McKibben's discussion was, it was mostly interpreted as a rhetorical position in the very vociferous debates over environmental issues in the period of the late 1980s and early 1990s. Yet, as we will see below, when McKibben was making his arguments television was paying unprecedented, though still perhaps marginal, attention to environmental issues. In this paper, we take a look at patterns of television coverage of environmental issues, looking at the years 1991 through 1995. Focusing on prime-time televised entertainment, we

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J&MC Quarterly  
Vol. 74, No. 1  
Spring 1997  
147-159  
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examine how the issue of the environment appears in the "background" of televised culture, both through an analysis of nature as a "theme" in television entertainment and through an analysis of "episodes" within programs which have explicit environmental content.

## **Previous Research**

In media research about the environment, studies can be broken down in two broad categories: effects studies and content studies. Since the late 1960s, a substantial literature has built up in both areas, especially the content area. The initial impulse of content studies was to deal with the environment as a newly emerging social issue, providing simple descriptions of media attention to the issue. The effects studies have focused on how media use and portrayal affect environmental beliefs and attitudes. In this paper, we present a kind of content analysis which has been surprisingly missing from the literature on environmental media content: it is an analysis of the environmental messages of prime-time television. This is part of our ongoing project which measures the impacts of television viewing on environmental beliefs.<sup>2</sup>

It is somewhat surprising that prime-time television programs have not been more frequently content analyzed for environmental issues (especially since they have so frequently been analyzed for other themes). One factor militating against this is that *news* is typically seen as the appropriate channel for environmental content, because environmentalism has been seen primarily as a sociopolitical "issue." Secondly, because television programs are more difficult to obtain and content analyze, many environmental content analyses have focused on newspaper and magazine coverage, which can be more easily gathered and analyzed. Still, despite the lack of knowledge about how TV entertainment portrays the environment, the journalistic studies of environmental content are very helpful in formulating a general approach to the environment on TV.

Studies of journalistic coverage of the environment, both on press and TV, have ranged from simple descriptions of coverage patterns across the years to more theoretical examinations of characteristics and qualities of environmental journalism. Descriptive studies include Funkhouser's examination of early coverage in news magazines,<sup>3</sup> Bowman and Hanaford's earlier examination of environmental issue coverage in magazines after Earth Day,<sup>4</sup> and Bowman and Fuchs' two-decade study of magazine coverage.<sup>5</sup>

Other content studies of print media have focused on particular environmental issues. These studies include Kauffeld and Fortner's examination of acid rain coverage,<sup>6</sup> Friedman, Gorney, and Egolf's study on Chernobyl,<sup>7</sup> and a variety of studies on global warming, including Wilkins' study on values in media coverage,<sup>8</sup> and Bell's examination of mistakes in coverage of climate change.<sup>9</sup>

Descriptive studies normally come first in new media research fields, as they attempt to open up the ground for later theory. More specialized and issue-oriented content analyses can then formulate hypotheses about content patterns. In more recent years, a variety of specialized hypotheses about journalistic coverage of the environment has emerged. Many of these studies have focused on the role of "narrative" in environmental journalism by examining aspects of how environmental issues are incorporated into the conventions of story-telling.

The role of narrative factors in journalism and audience reception of journalism has also been widely recognized.<sup>10</sup> The distinction between news that simply reports facts and a news system that tells "stories" appears

in virtually every analysis of news as communication. But the fact/story dichotomy is particularly highlighted in discussions of journalism's presentation of scientific issues, where "facts" are so highly prized and "stories" widely distrusted.

Studies that have examined the role of narrative include Nelkin,<sup>11</sup> Krinsky and Plough;<sup>12</sup> Singer and Endreny;<sup>13</sup> Salamone, Greenberg, Sandman, and Sachsman;<sup>14</sup> Patterson and Wilkins;<sup>15</sup> Wilkins and Patterson;<sup>16</sup> and Dunwoody and Griffin.<sup>17</sup> Taken together, these studies show that imagery tends to replace content in science journalism and that the actual scientific research process tends to disappear. Also, the studies show that science and environmental coverage is often linked to highly dramatic events.

Thus, for instance, Salamone et al. found that journalists tended to place less emphasis on scientific accuracy in their news story evaluations than scientists, government, or activists did.<sup>18</sup> Indeed, journalists typically rely on personal "schemata" of journalists to frame stories; often these schemata are based on the routines of news practice and the conventions of narrative.<sup>19</sup>

Even though news is supposed to focus on facts and "rational" explanation of the environment and science, it becomes evident that narrative factors play a major role in the way environmental information is communicated. Because news itself is a form of entertainment, it is not a huge leap to imagine that television entertainment representations can also play a role in the narrative world of the social environment. This observation motivates our study. However, there is a relative dearth of research on television's coverage of the environment which would permit the sort of sophisticated theorizing seen in the research on environmental journalism. Again, though, studies on television news as narrative do offer guidance.

For instance, Nimmo and Combs<sup>20</sup> analyzed TV coverage of Three Mile Island. They emphasized differences in coverage by individual networks, in contrast to most studies which treat television news as an institutional bloc. They argued that differences in coverage were due to institutional "ethos." Melodrama was a key feature of the story, as in many environmental stories which require dramatic events to motivate the coverage. Their analysis of "fantasies" and "melodrama" in television news again highlights the importance of narrative.

Gorney<sup>21</sup> found that TV portrayals of Chernobyl were sensationalized and dramatized, producing a distortion of perception of the news value of the story and the risks involved. She concluded that viewers were not presented with enough information to make adequate risk judgments. In general, Chernobyl was seen as a dramatic story by definition, and the subtler environmental aspects of such a story should probably be expected to be overshadowed.

Barton<sup>22</sup> examined coverage of TV news about acid rain. As in other studies, conflict and drama of news presentations of environmental issues were highlighted. The story exists to serve the purpose of the journalist rather than policy makers; thus, narrative aspects are emphasized over substantive ones. Greenberg, Sachsman, Sandman, and Salamone<sup>23</sup> found the same phenomenon, in that networks are more influenced by the dramatic value of a story than by the actual inherent risk in a story. Thus, very risky phenomena might well be ignored if there were no particular dramatic reason for presenting a story.

McKibben's study, which did not use normally accepted standards for content analysis, comes closest to what the literature has been lacking: a study of how environmental issues are covered on a day-to-day basis in the

entertainment programs which virtually everyone watches. This lack is difficult to redress for a number of reasons. First, environmental content, if it exists in daily prime-time programs, will be found at a much lower level than in newspapers and TV journalism. Thus, samples of a large enough size must be gathered to reveal the content. This leads to a second problem, which is that television content coding across such large samples can be a time-consuming and expensive process. Despite these barriers, Shanahan<sup>24</sup> examined prime-time television programming in 1991 and 1993 to determine the extent of environmental messages and the contexts within which viewers would be expected to encounter such messages. It was found that environmental messages are few and far between in prime-time programs. Nature and environmental themes are sporadic within the context of a greater focus on themes such as sex, crime, family, relationships, etc. This study was the first to establish general parameters for the coverage of environment in prime-time television. In the current study, we extend the analysis by looking at two additional years of data.

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## Research Questions

Because this study is one of the first to examine environmental content in entertainment programming, it is essentially descriptive. Our goal is to find out how frequently the environment appears as a theme in prime-time programs and how often specific environmental issues come up in such programs. We assumed ahead of time, along with McKibben, that attention to environmental issues would be low. A finding that television pays relatively little attention to the environment would then lend support to an effects theory of television as a marginalizer of environmental consciousness.

A number of indicators show that environmental concern has declined since an early 1990s peak. For instance, 76% of respondents to NORC's General Social Survey in 1990 thought the government was spending "too little" to solve environmental problems.<sup>25</sup> By 1993, that percentage dropped to 59.4, and rose only slightly in 1994 to 61.1. In view of these changes in public opinion, we were also interested in the trend in attention to the environment in the four years of our sample. Because our sample begins in 1991, a period of relatively close attention to environmental issues, and ends in 1995, when such attention had declined, it is interesting to know whether television's attention to environmental issues follows the general opinion climate. Thus, we hypothesized that television's attention to environmental issues would decline from 1991 to 1995.

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## Methods

This paper extends and follows the method presented in our earlier study.<sup>26</sup> In three randomly chosen week-long time periods (in November, 1991; January, 1993; and February, 1994) all programs appearing on the three Boston network affiliates were recorded from the access and prime-time slot (7-11 p.m.). In September/October 1995, all such programs were taped from the Ithaca area affiliates in Syracuse and Binghamton, New York. All programs appearing on the local affiliate were analyzed, even if they were not network programs (though most were network programs). The sample included network news programs, local feature/magazine programming, local news programming, syndicated first-run programming, and regular network entertainment (including some "off-network" syndication). Four hours of programming were sampled on three networks on seven evenings in the four-week samples, yielding 336 potential hours of sample content.

Due to some technical problems in the 1994 sample, we coded 317 of these hours, in 402 separate programs.

An important issue is the size of a sample needed to detect the proportion of environmental attention in television programs. We assumed that the number of programs dealing with environmental issues at all would be relatively small, perhaps around 10% of the total. To detect a population proportion of 10% (with a .05 margin of error) in a universe of 4329 programs (a yearly estimate computed by multiplying the number of programs in our sample 1995 week by 39, leaving out 13 weeks for a summer season) requires a sample of about 140 programs.<sup>27</sup> We sampled only a week's worth of programming in each year, so it turns out that our yearly samples were below that number (our average sample size was 100.5 programs). We sampled on a weekly basis to facilitate comparison across years, but the lower than ideal *N* means our yearly estimates should be interpreted with caution. The combined four-year data set, with 402 programs, is sufficiently large to detect effects of any size, so our aggregated data analyses can be generalized without circumspection.

Each program was examined using a four-part coding instrument. The first part was based upon the content coding scheme long used in Cultural Indicators research (see Signorielli and Morgan for a description of Cultural Indicators research<sup>28</sup>) to record basic information about the "themes" appearing in programs. We defined themes as major topics, issues, or subject areas appearing within programs (this study does not deal with issues relating to narrative structure). The various themes (there were a total of 16) included things like "relationships between the sexes," "media/entertainment," "law enforcement/crime," "health," "science," etc. A theme for "nature," also used in the CI coding scheme, was included. The coding scheme employed allowed for themes to be coded as "absent," representing a "minor" focus, representing a "secondary" focus, or representing a "primary" focus of a program. This section of the coding instrument also included items measuring basic information about the program (time, network, genre, etc.).

The first section also recorded the number of environmental "episodes" appearing in each program. An environmental episode was defined as any discrete portion of a program involving spoken words or physical action in which environmental issues were specifically implicated or discussed. That is, we coded any episode with a meaningful environmental position in the narrative of the program. Environmental "images" and background scenery were more difficult to code, since almost any image could be given an environmental interpretation, so we did not code them.

Episodes were coded as either environmentally "concerned," "neutral," or "unconcerned." "Concerned" statements were those that expressed approval of the importance of environmental issues or implicitly supported environmental positions. For instance, if a character in a sitcom mentioned recycling and either explicitly or implicitly supported the technique, that would be a "concerned" episode. "Neutral" episodes took no position but mentioned the environment. "Unconcerned" episodes were those where specific opposition was taken to environmental issues or where such opposition was implicated. In some cases, for instance, environmental issues became the focus of a joke or put-down. Criticizing someone as a "tree-hugger" would be an example of an unconcerned environmental episode.

The next part of the instrument coded details about the episode. Demographic information about who performed the episode was coded. For

each environmental episode, we coded information about what specific environmental issues were discussed or implicated. Thus, each episode can be described as being specifically about certain issues, including acid rain, global warming, toxic waste, etc.

Data were coded by the authors; some assistants were used at various points throughout the sample span. Coding pre-tests and extensive coder training were done to enhance intercoder reliability prior to recording the data in each of the four separate years. In order to more accurately assess coder reliability, we double coded a 15% subsample of the 1995 data. We analyzed coder reliability in the assessment of program themes. We found, using Scott's pi as an estimate, an intercoder reliability of .69. This figure is extremely close to the minimum bound of .70 suggested by Singletary.<sup>29</sup>

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## Results

Overall, we found that the theme "nature" appears relatively infrequently in television programs. To count as a theme, natural or environmental issues had to be a narrative part of the program. Simple scenic backgrounds of trees, etc., did not count. However, a narratively important natural setting for a program, such as the wilderness or mountains, would establish nature as a theme in a program.

Nature is completely absent as a theme in almost 80% of programming, and it is the outstanding theme in only 1.7% of the 402 programs we coded. Compared to other themes such as "media/entertainment," "family," "personal relationships," and "financial success," nature as a theme is very infrequent. For instance, the "relationship" theme is paramount in 23.4% of all programs, while the "family" theme appears as primary in 31.2% of all sampled programs.

This is perhaps not too unexpected a finding, which McKibben himself highlighted. Television draws attention to the human world and is itself a human-created environment. Thus it is not surprising that human-centered themes have dominated the narrative world of TV. Table 1 shows frequencies for selected themes in prime-time television.

However, nature is by no means the only marginalized theme. For instance, religion was the primary theme in only one of the programs we sampled, and it was absent as a theme from more than 85% of our sample. If nature and religion often go together in our thinking,<sup>30</sup> then it is perhaps more than coincidence that television tends to ignore both.

To examine how nature as a theme relates to other themes of programs, we conducted a multidimensional scaling analysis of 10 of the themes we coded. This analysis uses the dissimilarities between themes' importance in programs to characterize the overall relationship among themes in the body of programs. This tells us whether, for instance, nature generally does not appear as a theme when family themes are present, or whether money and personal relationship themes tend to "go together." The scaling analysis produces "dimensions" which visually map the themes in relation to each other.

Our analysis, presented in Figure 1, shows that nature themes tend to be very separate from themes such as "personal relationships," "family," "law/crime," and the "money"/"entertainment" themes. Thus, not only are nature themes less frequent, but they are separate from the dominant themes in prime time. Although not unexpected, this analysis highlights that nature themes are not considered important in television programs which explore the human-centered themes which dominate programming.

TABLE 1

## Frequency and Relative Frequency of Appearance of Selected Themes in Prime-Time Programs

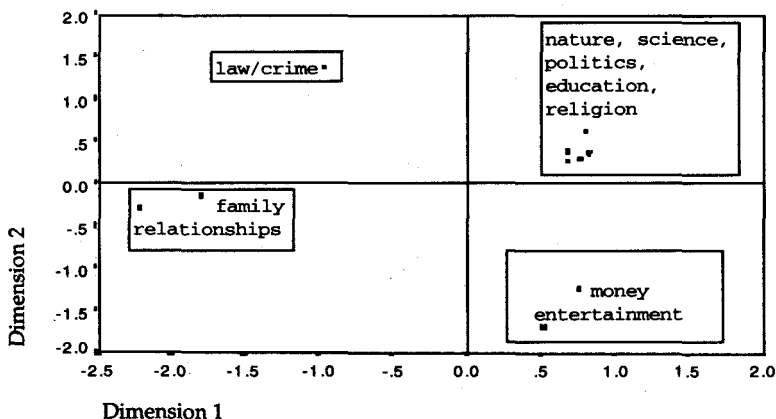
Theme ->	nature	religion	personal relationships	family	media/enter- tainment	law enforce- ment/crime	science	politics
theme is absent	78.9% 317	85.5% 343	38.6% 155	26.2% 105	52.9% 212	51.9% 208	83.8% 336	76.3% 306
theme is minor	11.4% 46	11.5% 46	17.2% 69	20.0% 80	13.7% 55	9.7% 39	11.5% 46	9.2% 37
theme is secondary	8.0% 32	2.7% 11	20.9% 84	22.7% 91	12.2% 49	12.5% 50	2.7% 11	9.2% 37
theme is primary	1.7% 7	.2% 1	23.4% 94	31.2% 125	21.2% 85	25.9% 104	2.0% 8	5.2% 21

Note: "Nature" and "religion" themes are positively correlated (Spearman correlation = .13;  $p < .01$ ). "Nature" and "relationships" themes are negatively correlated (Spearman correlation = -.13;  $p < .05$ ).

On the other hand, nature themes are very close in the dimensional analysis to "politics," "science," "religion," and "education." Our interpretation of these data is that nature, like politics, religion, etc., is treated as a sociopolitical "issue," whereas the numerically dominant themes such as personal relationships, entertainment, and others are treated more as aspects of "lifestyle." We would argue that the grouping of nature themes with science and politics suggests that television programs may choose a more "rationalist" discourse for environmental matters, distinct from its more common presentations of life, love, crime, money, etc. The fact that television programs apparently make a very distinct separation between issues and lifestyles is of great significance for the environment, especially if viewers make a similar separation in their own minds.

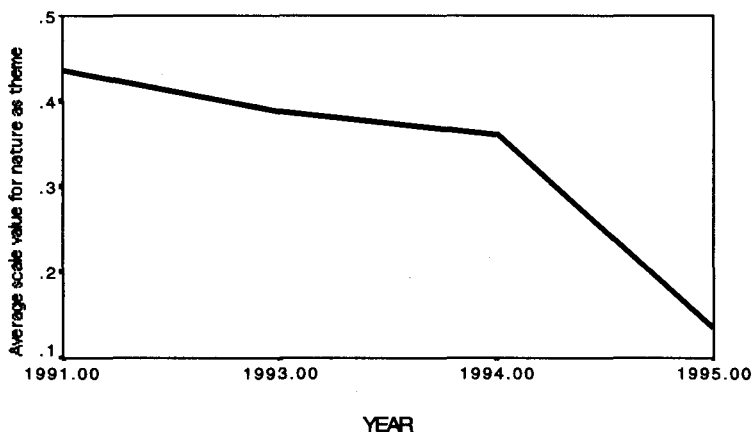
FIGURE 1

## Multidimensional Scaling Analysis of Ten Themes in Prime-Time Programs



Note: Stress = .16,  $R^2 = .92$

**FIGURE 2**  
*Prevalence of Nature as Theme in Programs, by Year*



Note: 0=theme is absent, 3=theme is primary  
Test of linearity:  $F=9.1878$ ,  $p<.0026$

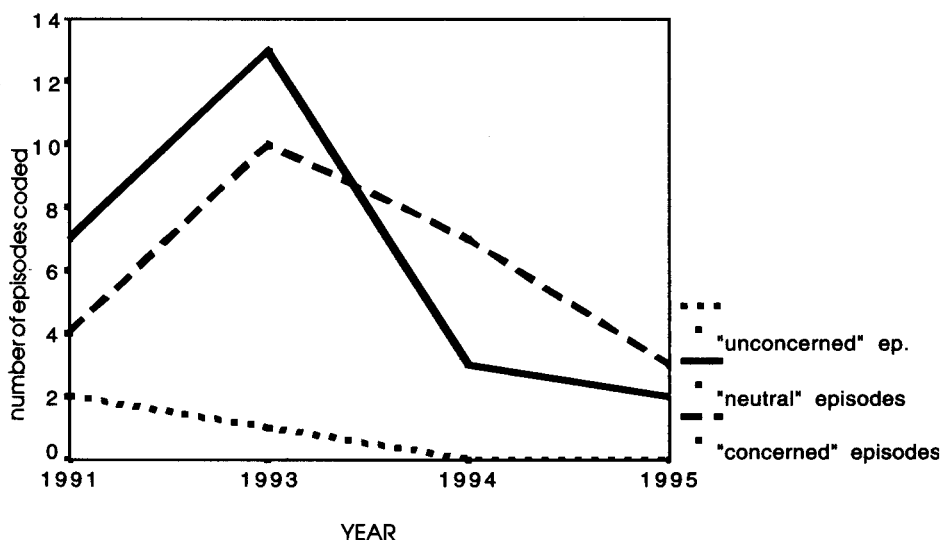
While it is not surprising that television entertainment programs are not environmentally focused, it is perhaps more intriguing to note that the frequency and importance of the appearance of nature as a theme has declined in recent years. Figure 2 shows how the overall importance of the nature theme in programs has declined from a high point in the first year of our sample and has dropped off drastically in 1995. This analysis is computed by averaging the scale values for the nature theme in all programs, ranging from 0 (theme is absent) to 3 (theme is primary). All themes tend to vary in importance from year to year in our sample, but the nature theme is the only one which shows a monotonic decrease (test for linearity:  $F = 9.18$ ;  $p = .0026$ ). This analysis supports the hypothesis that narrative attention to environmental issues has slipped in recent years, perhaps because of an overall decline in social attention to environmental issues.

Our analysis of environmental "episodes" allows for a closer look at the environmental content of television programs. We should note that such episodes occur relatively infrequently, even in programs which have nature as a "theme." A show which could have nature as an important backdrop theme (think of a movie such as "Cliffhanger" shot entirely in a natural setting) might have no explicit codeable references to environmental issues which would yield an environmental episode. Figure 3 shows that the absolute frequency of such episodes has declined markedly since 1993. While the 1994 sample is somewhat smaller (and may explain the decrease in that year) the overall pattern is one of marked decline of explicit references to environmental issues.

While there were very few environmental episodes in the sample, they tended to be scattered across the sample of shows. No program had more than two environmental episodes. Most of the episodes we measured were less than one minute in length. When such episodes appear, however, they do appear to either support the environment or at least take a neutral position. Because the number of environmental episodes in each year's sample is low,



**FIGURE 3**  
*Number of Environmental "Episodes," by Type and Year*



we did not calculate statistical significances for the observed trends; the numbers are purely descriptive.

When such episodes appear, it is interesting to know what they were about, so as to make a judgment about what issues are being presented to public opinion through the medium of prime-time television. In the environmental episodes we coded, the most frequently appearing single issue dealt with particular species and species protection (see Figure 4). This is because animals are sometimes characters in TV shows, and because species protection is a proven attractive issue for television audiences. Water and air pollution are also important foci for television environmental episodes. Interestingly, environmental activism was also a frequently appearing issue, as characters in comedies and dramas either portrayed or commented on the characteristics and qualities of the environmental activist. Again, it should be noted that all of these issues appeared in episodes which occurred relatively infrequently. However, coming as they do from our aggregated four-year sample, we may interpret them as representative of what an average viewer could see in a given week of prime-time television.

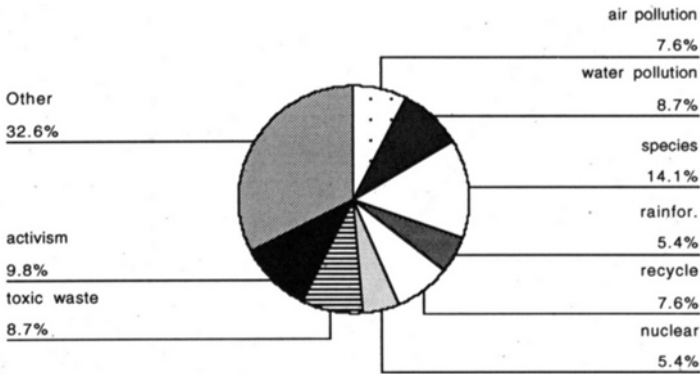
Overall, environmental and natural themes are covered less frequently than themes such as home, family, relationships, and money. This supports McKibben's assertion that television may tend to deflect attention from environmental issues, toward a world of human creation and context. Further, the nature theme is separated in television programming from lifestyle themes, but it is connected to "issue" themes such as politics or religion.

The implications of this for media effects research on the environment are clear. First, media research attention should turn more directly to the

## **Discussion**

**FIGURE 4**

*Distribution of Issue Foci in Environmental Episodes Observed in Fictional and Entertainment-Oriented Programs*



question of how attention to television programs influences viewers' beliefs and attitudes about the environment. A few studies<sup>31,32,33</sup> suggest that increased attention to television is associated with less concern for environmental issues. Until now, findings such as these could not be contextualized in the knowledge that television deflects attention from environmental issues in its dominant programs. While some may argue that this is due to the fact that the act of television viewing itself tends to detract from environmental awareness, our data suggest that the messages of television may also have something to do with the observed associations.

Further, the results suggest that television, certainly the most important narrative system in our culture, tends to separate "issues" such as the environment from the "meat" of its narratives. It may be that viewer attention and narrative interest is thus focused on lifestyle at the expense of issues. Yet it is not difficult to imagine narratives could be constructed in a way that would link environmental understanding with the audience-attracting lifestyle themes. It simply seems that television has not chosen this narrative road.

The frequency of attention to environmental issues has dropped since 1991. In our view, this is a symptom of an overall societal turn away from environmental issues. Major environmental issues such as Earth Day and the global warming scare had propelled the environment into the cultural consciousness in the early 1990s. It would appear that this attention has worn off, however, particularly as television producers and writers have apparently been less affected by the bug of environmental correctness. Moreover, the fact that television producers thought enough of the environment to include it in their scripts early on in our sample suggests that it is possible to link environmental issues with popular entertainment themes. The danger here, however, is that the dictates of entertainment require a quick succession of new and interesting topics. The environmental issue, always subject to opinion cycles,<sup>34</sup> apparently lost its appeal after 1993. Television presented environmental information while it was closer to the core of popular culture and attention, turning attention to other issues as they became more interest-

ing. Interestingly, the period in which McKibben criticized television for failing to deal with the environment was a time when it was focusing perhaps unprecedented attention on the issue.

When television does pay attention to the environment, there are issues which it characteristically "likes." Protecting species, especially animals with a high TVQ, is an obvious way for television entertainment programs to deal with environmental issues. The popular wildlife programs, though not appearing in our sample, suggest that anthropomorphized animal stories are one way to connect environmental issues to the lifestyles which television presents. Our analysis also shows that programs focus on a relatively limited menu of environmental issues, which is not surprising since there are relatively few environmental episodes in any given week.

We do not know "why" particular issues become the focus of mass media discussion. Global warming became a nationwide issue and was discussed widely on entertainment talk shows and even found its way into entertainment programs. Its currency made it fodder for the scriptwriting process, but also doomed it to a quick death in the media as a fad issue. It seems reasonable to assume, as with other media, that entertainment television looks at environmental issues cyclically and sporadically: any given issue probably has a relatively short lifespan in the national limelight.

This does not mean that environmental issues are disappearing from television altogether. Indeed, environmental portrayals may behave according to cyclical patterns as they do in journalism. Wildlife programs have gained new life, particularly in a cable environment where channels such as Discovery have garnered profitable viewership with environmental and natural programming. Children's television has remained a haven for environmental issues as well. On the other hand, potential new sources for environmental information, such as the proposed Ecology Channel, have failed to get off the ground.

Also, we should note that our study focuses mainly on the "relative" aspects of environmental portrayals on TV. That is, we argue that the environment is marginalized *relative to* other televised themes. However, one may also reasonably conclude that television viewers will be exposed to a great many environmental messages over the course of a viewing career even though such messages might be outnumbered by other themes. Thus, to fully theorize the potential impacts from such messages, one needs to be specific about whether relative or absolute frequency is what matters. We obviously can't deal with that issue in this paper, though we would suggest that viewers probably use some mechanism for remembering which issues have been dealt with more or less frequently in the programs they see, which would suggest that relative issue frequency is what matters for media effects. Still, this is only conjecture.

This paper shows some aspects of how prime-time television, still the most important source of entertainment and information nationally, treats environmental issues. Very few other environmental content analyses of prime-time television exist with which to compare our data. As our project continues, we will attempt to provide an ongoing cultural indicator about television's messages about the environment. In particular, these analyses will be used to formulate hypotheses about the impact of such messages in viewers. Eventually, these analyses will culminate in a more comprehensive approach to the role of television entertainment in environmental awareness.

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